



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/753,591

01/03/2001

Jesse A. Jurrens

1866

40158

7590

07/11/2008

WOODS FULLER SHULTZ & SMITH P.C.

ATTN: JEFFREY A. PROEHL

P.O. BOX 5027

SIOUX FALLS, SD 57117

EXAMINER

RODRIGUEZ, PAMELA

ART UNIT

PAPER NUMBER

3683

MAIL DATE

DELIVERY MODE

07/11/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/753,591	Applicant(s) JURRENS, JESSE A.	
	Examiner Pam Rodriguez	Art Unit 3683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 April 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 38-43 and 46-66 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 38-43 and 46-66 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The Remarks filed April 7, 2008 have been received and considered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 38-43 and 46-66 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,129,634 to Harris in view of U.S. Patent No. 3,752,270 to Valdespino.

Regarding Claim 38, Harris discloses a suspension device (see Figure 1) capable of connecting to a frame of a vehicle and a swing arm on which a wheel of the vehicle is mounted having most all the features of the instant invention including: a housing 40 defining an interior, a shock absorber 20/30/14 mounted on the housing (see Figure 1), the shock absorber including a rod 20 movably mounted on the housing 40 (at least through its connection to element 30 and element 26) such that at least a portion of the rod 20 extends into the interior of the housing and through the housing (see Figure 1 and the lower portion of rod 20 which extends through cylinder 18 and thus also through housing portion 40), a piston 14 positioned in the interior of the housing 40 and being mounted on the rod of the shock absorber to move with the rod

Art Unit: 3683

(note that the piston is readable as being mounted on rod 20 at least through element 18, see also Figure 5 of the reference), an air bag 30 positioned within the interior of the housing 40 (see Figure 1), the air bag being constructed of an elastomeric material, the air bag 30 having a first end 28 mounted on the housing in the interior of the housing at element 32 and a second end 34 mounted on the piston 14 such that the piston, the housing, and the air bag collectively define an air chamber within the housing (see Figure 1).

However, Harris does not disclose that his housing completely encloses the air bag.

Valdespino is relied upon merely for his teachings of an air bag suspension system (see Figure 6) forming a shock absorber which includes at least one air bag 46, the air bag is completely enclosed within a housing assembly 41.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have constructed the air bag suspension system of Harris to include an air bag enclosed completely within a housing assembly as taught by Valdespino as an effective means of sealing the air bag from the environment. By constructing the air bag to be fully enclosed within the housing assembly, outside dirt, debris, and other such contaminants would be prevented from damaging the air bag.

Regarding Claim 39, see ends 28 and 34.

Regarding Claim 40, see flange 32 and flange 34 and column 3 lines 55-58.

Regarding Claim 41, see portion 28 which receives a portion of an end cap 26 of the housing and portion 34 receiving piston 14.

Regarding Claim 42, see Figure 1.

Regarding Claim 43, see shock absorber 18 which inherently includes a hydraulic piston and a cylinder, at least a portion of the cylinder mounted in housing 40 and the piston would inherently be mounted on rod 20, wherein the rod is certainly capable of being configured to be mounted on one element of the frame or the swing arm and the cylinder is certainly capable of being mounted on the other of the frame or swing arm.

Regarding Claims 46, 47, and 66, see Claim 38 above and note how housing 41 of Valdespino shown in Figure 6 abuts against an entire circumference and entire length of air bag 46, when the air bag is fully extended as shown in the figure.

Regarding Claim 48, Harris discloses that a degree of pressurization of the pressurized air in the air-bag suspension member 10 is adjustable (see column 6 lines 13-31).

Regarding Claim 49, Harris inherently discloses that the air-bag suspension member is characterized by a support spring force which is a function of compression stroke.

Regarding Claim 50, see column 6 lines 13-31 of Harris.

Regarding Claims 51 and 53, Harris, as modified, discloses most all the features of the instant invention as applied above except for the specifics of the support spring force being a progressive function of compression stroke or an exponential function of compression stroke.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have constructed the air bag suspension member of Harris, as modified, so that the support spring force is either a progressive function or an exponential function of compression stroke as a matter of design preference dependent upon the desired damping characteristics of the suspension system. As long as the spring force is correlated to the compression stroke to provide adequate damping to the air bag system, their relationship to one another is arbitrary.

Regarding Claim 52, see column 6 lines 13-31 of Harris, where inherently this limitation would be true.

Regarding Claims 54 and 60, see Claim 48 above.

Regarding Claims 55 and 61, see Claim 49 above.

Regarding Claims 56 and 62, see Claim 50 above.

Regarding Claims 57, 59, 63, and 65, see Claims 51 and 53 above.

Regarding Claims 58 and 64, see Claim 52 above.

Response to Arguments

4. Applicant's arguments filed April 7, 2008 have been fully considered but they are not persuasive.

Firstly, applicant argues that the motivation set forth in the rejection (as a reason for the allegedly obvious combination relied upon) is not directed to a problem that has been shown to be 1) "known in the art" 2) "at the time of the invention" and 3) "addressed by the patent" as required by the Supreme Court in the KSR opinion.

Applicant contends that the ability to formulate a hypothetical problem that is believed to be solved by the allegedly obvious combination, but is not of concern in the art being applied, is most likely the result of hindsight reconstruction of the art.

In response to applicant's argument regarding KSR, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves **or in the knowledge generally available to one of ordinary skill in the art.** See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the examiner contends that one of ordinary skill in the art would recognize that if a shock absorber air bag is exposed to the environment, it would be in need of some sort of encasement or enclosure to protect it from damage. Thus, contrary to applicant's remarks, this problem addressed by the obviousness rejection is one which is "known in the art", "at the time of the invention", and due to the nature of the structure of the air bag of the Harris reference, would be "addressed by the patent".

Further, in response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a

Art Unit: 3683

reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Next, applicant argues that the line of argument that relies upon the “structural teachings” of the art, amounts, at least in this case, to speculation as to reasons why one might make the allegedly obvious modifications, without showing that one of ordinary skill in the art would be similarly inclined, since the problem that is being addressed by the asserted combination is not of concern to the art being relied upon.

In response to this, the examiner is merely relying upon her knowledge of the shock absorber art to formulate her rejections. Contrary to applicant’s remarks, the examiner’s obviousness modification isn’t without merit. The examiner contends that the problem being addressed by the asserted combination (i.e., completely enclosing the air bag within the housing) is a “problem that is addressed” by the Harris patent. Harris’ air bag 30 is not completely enclosed within the housing 40 and in light of Valdespino’s teachings, one of ordinary skill in the art would glean that fully enclosing the air bag within a shock absorber housing would protect the air bag from damage incurred from its operating environment. The air bag of Harris would be susceptible to potential puncture or wear from factors such as road spray and debris and this would be a problem that could be addressed by the patent, if for no other reason, due to the structural arrangement of the Harris air bag. Therefore, the examiner maintains the problem being addressed by the asserted combination of references is a concern to the art being relied upon.

Applicant next argues that one of ordinary skill in the art does not abandon the known solution that counteracts and prevents known problems that are explicitly addressed in the patent to solve a problem that is not even recognized in either of the documents of the combination.

In response to this, the examiner is not abandoning the known solution of the air bag 30 of Harris, but rather improving upon the air bag structure itself in light of the teachings of Valdespino. The fact remains that while the Harris patent may not expressly describe the need for a fully encapsulated air bag, this doesn't preclude the teachings of Valdespino of such an assembly from teaching such to one of ordinary skill in the art. This problem addressed in the obviousness modification, while not expressly discussed in the patents themselves, is not beyond the realm of one of ordinary skill in the art to recognize. Contamination of a shock absorber air bag such as Harris' is a fact and is something usually of concern in shock absorber design. So again, while this problem addressed in the combination is not stated in the references, it doesn't mean that the problem would not exist.

Applicant next argues that there is nothing in the Harris patent that states that a purpose of the partial restraining sleeve is to "shield and protect" the flexible member, so the Valdespino casing does not disclose an alternative means to better shield and protect the air bag.

In response to this, again, the examiner contends that the structural teachings of the Valdespino reference in encasing the air bag within the housing would motivate one of ordinary skill in the art, when apprised of the Harris patent, to better protect the air

bag from the harmful effects of the shock absorber operating environment. And while applicant is correct that the Harris patent does not make mention of his partial restraining sleeve shielding and protecting the flexible member present there, the fact remains that the sleeve would perform this function merely due to the nature of its construction. Therefore, since the Valdespino reference discloses a similar type of shock absorber assembly to that of Harris, the examiner maintains that the combination is still valid.

Next, applicant argues that the proposed modification of Harris with the selected feature of Valdespino eliminates the primary benefit of the Harris teaching (i.e., the creation of a "side acting force by use of a partial restraining sleeve that extends less than half way around the circumference of the air spring flexible member) for an alleged benefit that is not even mentioned in Valdespino. Applicant contends that nothing in the Valdespino patent suggests that there is a need to better shield and protect the bladder shown in Valdespino as alleged in the rejection. Applicant then surmises that an alleged alternative that eliminates the primary benefit expressed in the Harris patent is not a desirable or obvious alternative. Thusly, applicant concludes that modifying the Harris patent to include a housing member which completely encompasses the flexible member (as the examiner stated the Valdespino reference teaches) would eliminate this side acting force and would then teach away from the modification and thus completely eliminate the primary objection of the Harris patent.

In response to this, the examiner contends that the Valdespino reference is merely being relied upon to show that completely enclosing an air bag assembly within

Art Unit: 3683

a housing is known and would provide an effective means of sealing the air bag from the environment. While the examiner recognizes that the Harris patent designs his restraining sleeve to create a side acting force, the teachings of Valdespino would merely lead one of ordinary skill in the art to the conclusion that completely enclosing the air bag is a possibility and would protect the air bag assembly from dirt, debris, and other such contaminants. Contrary to applicant's remarks, the examiner does not conclude that the Valdespino reference would teach away from the objective of the Harris patent, but instead provide an alternative means to better shield and protect the air bag.

It is for all these reasons that the rejections have been maintained.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Art Unit: 3683

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pam Rodriguez whose telephone number is 571-272-7122. The examiner can normally be reached on Tuesdays 5 AM -11 AM and Wednesdays 5 AM -4 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rob Siconolfi can be reached on 571-272-7124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Pam Rodriguez
Primary Examiner
Art Unit 3683

/Pam Rodriguez/
Primary Examiner, Art Unit 3683
07/10/08